

Applicant

PR 09-MAR-1998: 98US-0077411.
PR 29-APR-1998: 98US-0083553.
PR 08-MAR-1999: 99US-0264851.
XX
XX
XX (CHIR) CHIRON CORP.
XX
XX Cen H, Garcia PD, Grieshammer U, Kassam A, Lee PP, Pot D;
PI Gospodarowicz D, Martin K;
XX
XX WPI; 1999-551410/46.
DR P-PSDB: AAY39628.
XX
XX
XX New polynucleotide encoding a fibroblast growth factor, useful for
PT treating peripheral neuropathy, Alzheimer's disease, ischemic stroke,
PT brain or spinal cord injury, nervous system tumors, multiple sclerosis
PT or epilepsy -
XX
XX
XX
PS Claim 1: Page 59-60; 60pp; English.

CC This sequence encodes the human fibroblast growth factor 98 (FGF98) of
CC the invention. FGF98 can be used for the isolation, regeneration,
CC proliferation, and differentiation of mammalian multipotent neural stem
CC cells, progenitor cells and progeny. Primary central (CNS) and peripheral
CC nervous system (PNS) cells when treated with FGF98 proliferate, have at
CC least a limited self regeneration capacity, and can undergo lineage
CC restriction in response to the local environment. The FGF98 sequences can
CC be used for providing trophic support for cells in a patient. They be
CC used to treat e.g. peripheral neuropathy, amyotrophic lateral sclerosis,
CC Alzheimer's disease, Parkinson's disease, Huntington's disease, ischemic
CC stroke, brain injury, acute spinal cord injury, nervous system tumors,
CC multiple sclerosis, infection, dementia, epilepsy, peripheral nerve
CC trauma or injury, exposure to neurotoxins, metabolic diseases, disorders
CC of insufficient blood cells, retinitis pigmentosa, age-related macular
CC degeneration, retinal detachment, myocardial ischemia/infarction,
CC peripheral vascular disease, renal artery disease and wound healing.
CC Cells produced by treatment with FGF98 are also used to screen drugs and
CC growth factors, which may affect development, differentiation, survival
CC and/or function of CNS and PNS derived neurons and glia. FGF98 can also
CC be used for the production of large amounts of otherwise minor
CC populations of cells to be used for generation of cDNA libraries for the
CC isolation of rare molecules expressed in precursor cells or progeny;
CC cells produced by treatment may directly express growth factors or other
CC molecules.
XX
XX

SQ Sequence 1570 BP; 371 A; 488 C; 491 G; 220 T; 0 other:

Query Match 100.0%; Score 1570; DB 20; Length 1570;
Best Local Similarity 100.0%; Pred. No. 6.6e-245;
Matches 1570; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

OY 1 CCCACGCTCGCGGACGCGTGGGGAACGGAGAGAGACATGAGCCGCGGCGCCCA 60
DB 1 CCCACGCTCGCGGACGCGTGGGGAACGGAGAGAGACATGAGCCGCGGCGCCCA 60
OY 61 GACGAGAGGCGCGTTCGCGGTGACGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 120
DB 61 GACGAGAGGCGCGTTCGCGGTGACGCGCGCGCGCGCGCGCGCGCGCGCGCGCG 120
OY 121 CCCTGGCCCCACGAGCTCCGCGCCGCGGCGCGGAGAGCGCACTGGGCTTCACAGCCGC 180
DB 121 CCCTGGCCCCACGAGCTCCGCGCCGCGGCGCGGAGAGCGCACTGGGCTTCACAGCCGC 180
OY 181 CGCGATCTGTCTCCCGGAGTGAAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 240
DB 181 CGCGATCTGTCTCCCGGAGTGAAGCGGCGGCGGCGGCGGCGGCGGCGGCGGCGG 240
OY 241 GCGCGGCGGAGGAGGAGTTCGCGGACCGCGGCGGCGGCGGCGGCGGCGGCGGCGG 300
DB 241 GCGCGGCGGAGGAGGAGTTCGCGGACCGCGGCGGCGGCGGCGGCGGCGGCGGCGG 300
OY 301 CGCGCGGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 360
DB 301 CGCGCGGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 360

OY 361 CGCTGATGCCGAGGCGCGCCCGGAGCGCCCGCGAGAGAGAGAGTCTGACAGCAGC 420
DB 361 CGCTGATGCCGAGGCGCGCCCGGAGCGCCCGCGAGAGAGAGAGTCTGACAGCAGC 420
OY 421 AGCCGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 480
DB 421 AGCCGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 480
OY 481 CGGTCCCGGCGGCGGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 540
DB 481 CGGTCCCGGCGGCGGCGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGGAGG 540
OY 541 CGCCAGCGATGATTTCAGGCGCCCTCGCGCTGACCTTCTGTTTACACTTCCTGTC 600
DB 541 CGCCAGCGATGATTTCAGGCGCCCTCGCGCTGACCTTCTGTTTACACTTCCTGTC 600
OY 601 CTGTGCTTCAGGTACAGTGTGCTGTGTTGCCGAGAGAGACGTGGCATTCACGTG 660
DB 601 CTGTGCTTCAGGTACAGTGTGCTGTGTTGCCGAGAGAGACGTGGCATTCACGTG 660
OY 661 GAGAACGAGCGCGGCGTGGGAGATGAGCGCTGAGAGCGTGGCGGTACAGCTC 720
DB 661 GAGAACGAGCGCGGCGTGGGAGATGAGCGCTGAGAGCGTGGCGGTACAGCTC 720
OY 721 TACAGCGGACCAAGTGGGAAACATTCAGGTCTGGCGCGAGATCAGTCCCGCGG 780
DB 721 TACAGCGGACCAAGTGGGAAACATTCAGGTCTGGCGCGAGATCAGTCCCGCGG 780
OY 781 GAGATGGGACAGATGATGCCAGCTCTCTAGTGAGACAGACCTTCGATGACATC 840
DB 781 GAGATGGGACAGATGATGCCAGCTCTCTAGTGAGACAGACCTTCGATGACATC 840
OY 841 CGGATCAAGGGCAAGGAGAGCGGAATTCCTGCTGATGACCGGAAAGCAAGCTCG 900
DB 841 CGGATCAAGGGCAAGGAGAGCGGAATTCCTGCTGATGACCGGAAAGCAAGCTCG 900
OY 901 GGGAGCCCGGATGGACCAAGCAAGGAGTGTGTTCATGAGAGGTTCTGAGAACAC 960
DB 901 GGGAGCCCGGATGGACCAAGCAAGGAGTGTGTTCATGAGAGGTTCTGAGAACAC 960
OY 961 TACAGGCGCTGATGTGCGGCTAAGTACTCCGCTGTACCTGAGGCTTCAACAAAG 1020
DB 961 TACAGGCGCTGATGTGCGGCTAAGTACTCCGCTGTACCTGAGGCTTCAACAAAG 1020
OY 1021 CGGCGCGGAGGCGCCCAAGACCGGAGAACCGAGACAGAGGTGATTCATGAAGCG 1080
DB 1021 CGGCGCGGAGGCGCCCAAGACCGGAGAACCGAGACAGAGGTGATTCATGAAGCG 1080
OY 1081 TACCCCAAGGGGACGCGAGCTTCAGAAAGCCCTTCAAGTACAGCAGCGTGAACAAG 1140
DB 1081 TACCCCAAGGGGACGCGAGCTTCAGAAAGCCCTTCAAGTACAGCAGCGTGAACAAG 1140
OY 1141 TCCGCTGGATCGGCGCCCAACACCTGCTTAGCGCACCCCGCGCGCGCTCAGCTCG 1200
DB 1141 TCCGCTGGATCGGCGCCCAACACCTGCTTAGCGCACCCCGCGCGCGCTCAGCTCG 1200
OY 1201 CCCTGGCCACTACACTCCAGAAAACCTGATGAGAGGAATATTTTACATGAANAAT 1260
DB 1201 CCCTGGCCACTACACTCCAGAAAACCTGATGAGAGGAATATTTTACATGAANAAT 1260
OY 1261 AAGGAAGAAGCTATATTTTGTACATGTGTTTAAAGAAAGCAAAAACCTGAACCAAC 1320
DB 1261 AAGGAAGAAGCTATATTTTGTACATGTGTTTAAAGAAAGCAAAAACCTGAACCAAC 1320
OY 1321 TCTTGGGGGAGGAGGATTAAGATTTTATTTTACCTTGAACCCCGGATGACAAAAGA 1380
DB 1321 TCTTGGGGGAGGAGGATTAAGATTTTATTTTACCTTGAACCCCGGATGACAAAAGA 1380
OY 1381 CTCAGCAAGAGGAGTGTAGTCAACCCAGAGTGTCTCTCTCTAGGAACAGACAAAC 1440
DB 1381 CTCAGCAAGAGGAGTGTAGTCAACCCAGAGTGTCTCTCTCTAGGAACAGACAAAC 1440

QY 1441 TCCTAACTCGTCCCGAGAGGAGACTTGAATGAGAGAAACCACTTTGAGAAAG 1500
 Db 1441 TCCTAACTCGTCCCGAGAGGAGACTTGAATGAGAGAAACCACTTTGAGAAAG 1500
 QY 1501 TCCTTTTCCCAAGGTTCTGAAAAGAAAAACAAAAACAAAAACAAAAACAAAA 1560
 Db 1501 TCCTTTTCCCAAGGTTCTGAAAAGAAAAACAAAAACAAAAACAAAAACAAAA 1560
 QY 1561 AAAAAAAA 1570
 Db 1561 AAAAAAAA 1570
 RESULT 2
 AAS03020
 ID AAS03020 standard; cDNA; 1517 BP.
 AC AAS03020;
 XX
 DT 29-AUG-2001 (first entry)
 XX
 DE Human diagnostic and therapeutic (dithp) cDNA sequence #9.
 XX
 KW Human diagnostic and therapeutic molecule; dithp; gene therapy;
 KW thalassemia; cardiovascular disorder; cell proliferative disorder;
 KW cancer; neurodegenerative disorder; autoimmune disorder;
 KW infectious disorder; inflammatory disorder; developmental disorder;
 KW Incyte ID number 2371521dec; extracellular information molecule; ss.
 XX Homo sapiens.
 OS
 PN WO200121836-A2.
 XX
 PD 29-MAR-2001.
 XX
 PF 19-SEP-2000; 200WO-US25643.
 XX
 PR 23-SEP-1999; 99US-0155760.
 PR 24-SEP-1999; 99US-0155939.
 PR 24-SEP-1999; 99US-0156294.
 PR 28-SEP-1999; 99US-0156565.
 PR 28-SEP-1999; 99US-0156624.
 PR 28-SEP-1999; 99US-0156625.
 PR 24-NOV-1999; 99US-0167410.
 PR 24-NOV-1999; 99US-0167453.
 PR 24-NOV-1999; 99US-0167517.
 PR 24-NOV-1999; 99US-0167520.
 PR 24-NOV-1999; 99US-0167542.
 PR 29-NOV-1999; 99US-0167943.
 PR 29-NOV-1999; 99US-0167945.
 PR 30-NOV-1999; 99US-0168197.
 PR 30-NOV-1999; 99US-0168265.
 PR 30-NOV-1999; 99US-0168429.
 PR 30-NOV-1999; 99US-0168432.
 PR 01-DEC-1999; 99US-0168468.
 PR 01-DEC-1999; 99US-0168598.
 XX
 PA (INCYTE GENOMICS INC.
 XX
 PI Hodgson DM, Lincoln SE, Russo FD, Spiro PA, Banville SC;
 PI Bratcher SR, Dufour GE, Cohen HU, Rosen BH, Shah P, Chalup MS;
 PI Hillman JL, Jones AL, Yu JY, Greenawalt LB, Panzer SR;
 PI Roseberry AM, Wright RJ, Chen W, Liu TF, Yap PE, Stockdreher TK;
 PI Amshey S, Fong WT;
 XX
 DR WPI; 2001-281607/29.
 XX
 PT Novel diagnostic and therapeutic polynucleotides, used in disease
 PT diagnosis and for gene therapy of conditions such as cancer and
 XX thalassemia
 XX
 PS Claim 1, Page 256; 299pp; English.

CC The present sequence for human diagnostic and therapeutic (dithp) cDNA
 CC sequence #9 is 1 of 71 (AAS0302-AAS03082) novel sequences described
 CC in the invention. The present sequence (Incyte ID No: 2371521dec)
 CC encodes an extracellular information molecule. The dithp polynucleotides
 CC may be used to diagnose a condition disease or disorder associated with
 CC human molecules. They can be used to identify the presence of similar
 CC nucleic acids. Dithp polynucleotides may be used to generate hybridisation
 CC probes for use in chromosomal mapping. Polypeptides (DITHP) encoded by
 CC dithp are used to screen for molecules which bind to them and modulate
 CC their activity. Dithp polynucleotides can be used for gene therapy of
 CC disorders such as severe combined immunodeficiency syndrome (SCID),
 CC cystic fibrosis, thalassemia, haemophilia resulting from Factor VIII
 CC or IX deficiencies, cardiovascular disorders e.g familial
 CC hypercholesterolaemia (FH), cell proliferative disorders e.g. cancers,
 CC neurodegenerative disorders, autoimmune/inflammatory disorders,
 CC infectious disorders and developmental disorders. The antibodies can be
 CC used to analyse protein expression levels.
 XX
 SQ Sequence 1517 BP; 419 A; 424 C; 370 G; 302 T; 2 other;

Query Match 68.0%; Score 1068; DB 22; Length 1517;
 Best Local Similarity 98.9%; Pred. No. 7; 6e-164;
 Matches 1074; Conservative 0; Mismatches 12; Indels 0; Gaps 0;

QY 483 GTCCCGGCGCGGAGGAGACATGTGACAGGCTGAGAGCGCGCTCCCTCCCG 542
 Db 1 GTCCCGGCGCGGAGGAGACATGTGACAGGCTGAGAGCGCGCTCCCTCCCG 60
 QY 543 CCCAGCGATGATTACAGCGCCCTCCGCTGCATCTGCTGTATTACATCTCTGCTCT 602
 Db 61 CCCAGCGATGATTACAGCGCCCTCCGCTGCATCTGCTGTATTACATCTCTGCTCT 120
 QY 603 GTGCTTCCAGTACAGGCTGCTGTTGCCGAGAGAAAGTGACTCCGCTACACGTGGA 662
 Db 121 GTGCTTCCAGTACAGGCTGCTGTTGCCGAGAGAAAGTGACTCCGCTACACGTGGA 180
 QY 663 GAACACAGCGCGGCTGCGGAGCATGTGACCGCTGACGCTGACACGCTCTA 722
 Db 181 GAACACAGCGCGGCTGCGGAGCATGTGACCGCTGACGCTGACACGCTCTA 240
 QY 723 CACCCGAGCAGTGGGAAACATCCAGTCTGCGCCGAGATCAGTCCCGCGCGGA 782
 Db 241 CACCCGAGCAGTGGGAAACATCCAGTCTGCGCCGAGATCAGTCCCGCGCGGA 300
 QY 783 GGATGGGAGCAAGTATGCCAGCTCCTAGTGAGACAGACACTTCCGTAGTCAAGTCG 842
 Db 301 GGATGGGAGCAAGTATGCCAGCTCCTAGTGAGACAGACACTTCCGTAGTCAAGTCG 360
 QY 843 GATCAAGGGGCAAGAGCGGAATTTCACTGTCATGACCGCAAGGCAAGGCTGCGG 902
 Db 361 GATCAAGGGGCAAGAGCGGAATTTCACTGTCATGACCGCAAGGCAAGGCTGCGG 420
 QY 903 GAAGCCCGATGCGACACGACGAAAGAGTGTGTTTCATGAGAGGTTCTGGAGAACACTA 962
 Db 421 GAAGCCCGATGCGACACGACGAAAGAGTGTGTTTCATGAGAGGTTCTGGAGAACACTA 480
 QY 963 CACGCGCTGATGTGGCTAAGTACTCGGCTGCTGACGCTGCTTACCAAGAGGGCG 1022
 Db 481 CACGCGCTGATGTGGCTAAGTACTCGGCTGCTGACGCTGCTTACCAAGAGGGCG 540
 QY 1023 GCGCGGAAAGGGGCGCAAGCGCGGGGAGACGACGAGAGTGATTTCTGAAGCGCTA 1082
 Db 541 GCGCGGAAAGGGGCGCAAGCGCGGGGAGACGACGAGAGTGATTTCTGAAGCGCTA 600
 QY 1083 CCCCAAGGGGACCGGAGCTTCAAGAACCCCTTCAAGTACACGAGGTGACCAAGAGCT 1142
 Db 601 CCCCAAGGGGACCGGAGCTTCAAGAACCCCTTCAAGTACACGAGGTGACCAAGAGCT 660
 QY 1143 CCGTGGATTCGGCCACACACCTTGGCTTACGACCCCGCGCGGCTCAGGTGCGC 1202
 Db 661 CCGTGGATTCGGCCACACACCTTGGCTTACGACCCCGCGCGGCTCAGGTGCGC 720
 QY 1203 CTGGCCACACTCACACTCCAGAAACTGATCAGAGGAATATTTTACATGAAAAATA 1262

```
|||||
Db 721 CTGGCCACACTGACACTCCAGAAACGATCAGAGAAATATTTTACATGAAAAATA 780
QY 1263 GGAAGAGAGCTATATTTTGTACATGTGTGTTAAAGAACAAAACTAACCAACTC 1322
Db 781 GGAAGAGAGCTATATTTTGTACATGTGTGTTAAAGAACAAAACTAACCAACTC 840
QY 1323 TTGGGGGGAGGGGTGATAGATTTTATTTGACTTGAACCCCGATGACAAAAGACT 1382
Db 841 TTGGGGGGAGGGGTGATAGATTTTATTTGACTTGAACCCCGATGACAAAAGACT 900
QY 1383 CACGCAAGGAGAGCTAGTCAACCCACAGGTGCTGTCTCTAGAACAGACAATC 1442
Db 901 CACGCAAGGAGAGCTAGTCAACCCACAGGTGCTGTCTCTAGAACAGACAATC 960
QY 1443 TAAACGCGCCCGAGAGGAGAGCTGAATGAGAAACCAACTTGAACCAAGCAAGTC 1502
Db 961 TAAACGCGCCCGAGAGGAGAGCTGAATGAGAAACCAACTTGAACCAAGCAAGTC 1020
QY 1503 CTTTTCCTCCAAAGGTTCTGAAGAAAAAATAAATAAATAAATAAATAAATAA 1562
Db 1021 CTTTTCCTCCAAAGGTTCTGAAGAAAAAATAAATAAATAAATAAATAAATAA 1080
QY 1563 AAAAAA 1568
Db 1081 GAGAAA 1086

RESULT 3
AAZ20594
ID AAZ20594 standard; DNA; 1128 BP.
AC AAZ20594;
XX
XX
XX 23-NOV-1999 (first entry)
DE Human fibroblast growth factor 98 coding sequence.
XX
XX Fibroblast growth factor 98; FGF98; human; multipotent neural stem cell;
XX progenitor cell; peripheral neuropathy; amyotrophic lateral sclerosis;
XX Alzheimer's disease; Parkinson's disease; Huntington's disease; dementia;
XX ischaemic stroke; brain injury; acute spinal cord injury; infection;
XX nervous system tumour; multiple sclerosis; epilepsy; metabolic disease;
XX peripheral nerve trauma; retinitis pigmentosa; macular degeneration;
XX retinal detachment; myocardial infarction; peripheral vascular disease;
XX renal artery disease; diagnosis; therapy; ss.
XX
XX Homo sapiens.
OS
XX
XX Key Location/Qualifiers
XX CDS 609..1091
XX FT /tag= a
XX FT /product= FGF98
XX
XX W09946381-A2.
XX
XX 16-SEP-1999.
XX
XX 09-MAR-1999; 99MO-US05235.
XX
XX 09-MAR-1998; 98US-0077411.
XX 29-APR-1998; 98US-0083553.
XX 08-MAR-1999; 99US-0264851.
XX
XX (CHIR ) CHIRON CORP.
XX
XX Cen H, Garcia PD, Grieshammer U, Kassam A, Lee PP, Pot D;
XX Gospodarowicz D, Martin K;
XX
XX WPI: 1999-551410/46.
XX P-PSDB; AAY39630.
XX
XX New polynucleotide encoding a fibroblast growth factor, useful for
```

treating peripheral neuropathy, Alzheimer's disease, ischaemic stroke, brain or spinal cord injury, nervous system tumours, multiple sclerosis or epilepsy -

Disclosure: Page 59; 60pp; English.

This sequence encodes the human fibroblast growth factor 98 (FGF98) of the invention. FGF98 can be used for the isolation, regeneration, proliferation, and differentiation of mammalian multipotent neural stem cells, progenitor cells and progeny. Primary central (CNS) and peripheral nervous system (PNS) cells when treated with FGF98 proliferate, have at least a limited self regeneration capacity, and can undergo lineage restriction in response to the local environment. The FGF98 sequences can be used for providing trophic support for cells in a patient. They be used to treat e.g. peripheral neuropathy, amyotrophic lateral sclerosis, Alzheimer's disease, Parkinson's disease, Huntington's disease, ischaemic stroke, brain injury, acute spinal cord injury, nervous system tumours, multiple sclerosis, infection, dementia, epilepsy, peripheral nerve trauma or injury, exposure to neurotoxins, metabolic diseases, disorders of insufficient blood cells, retinitis pigmentosa, age-related macular degeneration, retinal detachment, myocardial ischaemia/infarction, peripheral vascular disease, renal artery disease and wound healing. Cells produced by treatment with FGF98 are also used to screen drugs and growth factors, which may affect development, differentiation, survival and/or function of CNS and PNS derived neurons and glia. FGF98 can also be used for the production of large amounts of otherwise minor populations of cells to be used for generation of cDNA libraries for the isolation of rare molecules expressed in precursor cells or progeny; cells produced by treatment may directly express growth factors or other molecules.

Sequence 1128 BP; 197 A; 385 C; 402 G; 144 T; 0 other;

Query Match 65.5%; Score 1027.6; DB 20; Length 1128;

Best Local Similarity 99.6%; Pred. No. 2,3e-157;

Matches 1030; Conservative 0; Mismatches 4; Indels 0; Gaps 0;

```
QY 1 CCCAGCGCTGCCGAGAGCGGTGGAGAGCGAGAGACATGAGCCGCGGCCCA 60
Db 60 CCCAGCGCTGCCGAGAGCGGTGGAGAGCGAGAGACATGAGCCGCGGCCCA 119
QY 61 GAGGAGCGGCCGTACGCTTTCGCGCTCACGCCGCGGCCGACCCCGAGCGCTGAC 120
Db 120 GAGGAGCGGCCGTACGCTTTCGCGCTCACGCCGCGGCCGACCCCGAGCGCTGAC 179
QY 121 CCTGGCCCCAGAGCTCCGCGCCGCGGCGGAGAGGCAACTGGGCTTCAGACCCGC 180
Db 180 CCTGGCCCCAGAGCTCCGCGCCGCGGCGGAGAGGCAACTGGGCTTCAGACCCGC 239
QY 181 CGCGATGCTGTCCCGGACTAGCCGGGACAGCCCTCCACAGGAGCCCGGACGGCC 240
Db 240 CGCGATGCTGTCCCGGACTAGCCGGGACAGCCCTCCACAGGAGCCCGGACGGCC 299
QY 241 GCGCGCCAGCAGTAGAGGAGCTTCCCGCACCGGCGCGCTCTGTGCACACGCTG 300
Db 300 GCGCGCCAGCAGTAGAGGAGCTTCCCGCACCGGCGCGCTCTGTGCACACGCTG 359
QY 301 CCGCCCCGAGCCCTGTGGCCGCGCGGAGGCGGAGGCGTGGGAGAGCCGCGGGG 360
Db 360 CCGCCCCGAGCCCTGTGGCCGCGCGGAGGCGGAGGCGTGGGAGAGCCGCGGGG 419
QY 361 CGCTATGCGCGAGGAGCGCGCGCGGAGCGCCCGGAGCAGAGAGTGTGACAGCAGC 420
Db 420 CGCTATGCGCGAGGAGCGCGCGCGGAGCGCCCGGAGCAGAGAGTGTGACAGCAGC 479
QY 421 AGCGCGGAGAGGAGAGCAGCAGCGGCGGCGCGCGCGCGCGCGGAGCGCC 480
Db 480 AGCGCGGAGAGGAGAGCAGCAGCGGCGGCGCGCGCGCGCGCGGAGCGCC 539
QY 481 CGGTCCCGCGCGCGGAGAGGAGCAGTGTGACAGCTGTGAGAGCCGCGCTCCCTCC 540
Db 540 CGGTCCCGCGCGCGGAGAGGAGCAGTGTGACAGCTGTGAGAGCCGCGCTCCCTCC 599
```

QY	541	CGCCACGAGTATTCAGGCGCCCTCGGCTGACATGCTGTATTCACATCCTCGTG	600
Db	600	CGCCACGAGTATTCAGGCGCCCTCGGCTGACATGCTGTATTCACATCCTCGTG	659
QY	601	CTGTGTTCCAGGTACAGGTGCTGTGTGGCAGAGAACTGTGACCTCCGATCCACGTG	660
Db	660	CTGTGTTCCAGGTACAGGTGCTGTGTGGCAGAGAACTGTGACCTCCGATCCACGTG	719
QY	661	GAGAACGAGCGGGGCTGGGACATGTGACCCGTAAACAGCTCGGGCTGTACCAAGTC	720
Db	720	GAGAACGAGCGGGGCTGGGACATGTGACCCGTAAACAGCTCGGGCTGTACCAAGTC	779
QY	721	TACAGCCGAGCAGTGGGAAACACATCCAGGTCTGTGGCCGAGGATCAGTGCCCGGCGC	780
Db	780	TACAGCCGAGCAGTGGGAAACACATCCAGGTCTGTGGCCGAGGATCAGTGCCCGGCGC	839
QY	781	GAGATGGGACAAAGTATGCCGCTCTTAATGTGAGACAGACACTTGTGGTATGTCAAGTC	840
Db	840	GAGATGGGACAAAGTATGCCGCTCTTAATGTGAGACAGACACTTGTGGTATGTCAAGTC	899
QY	841	CGGATCAAGGGCAAGAGAGACGGAATTCATCTGTCGATGAACCCGAAAGGCAAGCTCGTG	900
Db	900	CGGATCAAGGGCAAGAGAGACGGAATTCATCTGTCGATGAACCCGAAAGGCAAGCTCGTG	959
QY	901	GGGAAGCCCATGTGGCACACAGCAAGGAGTGTGTGTTCATCGAGAAAGTTCTGGAGAACAC	960
Db	960	GGGAAGCCCATGTGGCACACAGCAAGGAGTGTGTGTTCATCGAGAAAGTTCTGGAGAACAC	1019
QY	961	TACAGGCGCCTGATGTGCGGTAAAGTACTCGGCTGGTACGTGGGCTTACCAAGAGAGGG	1020
Db	1020	TACAGGCGCCTGATGTGCGGTAAAGTACTCGGCTGGTACGTGGGCTTACCAAGAGAGGG	1079
QY	1021	CGGCGCGGGAAGGG 1034	
Db	1080	CGGCGCGCTTAAAG 1093	

Accession	Gene	Species	Location/Qualifiers
AA250351	AA250351 standard; cDNA; 833 BP.		
AC	AA250351;		
AD	18-MAY-2000 (first entry)		
AE	Human heart specific FGF-8b cDNA (confirmed sequence).		
AF	Human; heart specific fibroblast growth factor-8b; FGF-8b;		
AG	secreted protein; angiogenesis; anti-angiogenesis; cell differentiation;		
AH	diagnosis; prognosis; screening; treat; cancer; ischaemic heart disease;		
AI	vascular; gene therapy; ds.		
AJ	Homo sapiens.		
AK			
AL	Key		
AM	CDS		
AN	39..662		
AO	/*tag= a		
AP	/product= "Heart specific fibroblast growth factor-8b"		
AQ	39..119		
AR	/*tag= b		
AS	120..659		
AT	mat_peptide		
AW	/*tag= c		
AX	/product= "Mature FGF-8b"		
AY			
AZ	WO200005369-A2.		
BA			
BB	03-FEB-2000.		
BC			
BD	20-JUL-1999;		
BE	99WO-US12839.		
BF			
BG	20-JUL-1998;		
BH	98US-0093397.		
BI	10-SEP-1998;		
BJ	98US-0150684.		
BK			

PA (CURA-) CURAGEN CORP.
XX
X1 Shinketsu RA;
XX
DR WPI; 2000-182696/16.
DR P-PSDB; AAY44844.
XX
PT Novel angiogenesis and anti-angiogenesis secreted proteins used to
PT control angiogenesis -
XX
PS Claim 22; Fig 3B; 32pp; English.
XX
CC The present sequence is a cDNA (confirmed sequence) encoding
CC heart specific fibroblast growth factor-8b (FGF-8b), an angiogenesis/
CC anti-angiogenesis secreted protein from human heart library.
CC
CC The protein exhibits angiogenic
CC (either inducing or inhibiting) or cell differentiation activity.
CC The present sequence can be used for diagnosis, prognosis, screening
CC and treating diseases and disorders associated with aberrant levels of
CC the secreted protein. The protein can be used to control angiogenesis
CC e.g. in cancers, ischaemic heart and vascular diseases. The
CC polynucleotide can also be used in gene therapy.
XX
X0 Sequence 833 BP; 201 A; 239 C; 249 G; 142 T; 2 other;

[illegible]

AC	AAD07795,
XX	
DT	10-SEP-2001 (first entry)
XX	
DE	Human fibroblast growth factor (zFGF5) cDNA.
XX	
KW	Human: fibroblast growth factor-18; FGF-18; zFGF5; FGF receptor-2;
KW	FGF receptor-3; cytotoxin; cell proliferation inhibitor; tumour;
KW	multiple myeloma; bladder carcinoma; cervix carcinoma; cytotatic;
KW	thyroid carcinoma; osteosarcoma; ss.
XX	
OS	Homo sapiens.
XX	
FH	Location/Qualifiers
FT	CDS
FT	1..624
FT	/tag= a
FT	/product= "Human fibroblast growth factor (zFGF5)"
FT	1..81
FT	/tag= b
FT	82..621
FT	/tag= c
FT	/product= "Human mature fibroblast growth factor
FT	(zFGF5)"
XX	
PN	W0200139788-A2.
XX	
PD	07-JUN-2001.
XX	
PF	28-NOV-2000; 2000MO-US32380.
XX	
PR	02-DEC-1999; 99US-0452977.
XX	
PA	(ZYMO) ZYMOGENETICS INC.
XX	
PI	West JW;
XX	
DR	WPI: 2001-417789/44.
DR	P-PSDB; AAE04536.
XX	
PT	Novel fibroblast growth factor targeting composition useful for
PT	inhibiting the proliferation of cells expressing FGF receptor 3 or FGF
PT	receptor 2
XX	
PS	Disclosure; Page 57-58; 62pp; English.
XX	
CC	The present invention relates to methods for targeting cells that
CC	express fibroblast growth receptor-3 or -2. Fibroblast growth
CC	factor-18 (FGF-18) binds with FGF receptor-2 and -3. A targeting
CC	composition comprising FGF-18 component and cytotoxin, is useful for
CC	inhibiting the proliferation of cells that express FGF receptor-3 or
CC	-2, in a subject having tumour cells such as multiple myeloma cells,
CC	bladder carcinoma cells, cervix carcinoma cells, thyroid carcinoma
CC	cells, osteosarcoma cells and intimal smooth muscle cells. The present
CC	sequence is a cDNA encoding human zFGF5 protein.
XX	
XX	Sequence 917 BP; 244 A; 258 C; 252 G; 163 T; 0 other;

Query Match	51.3%;	Score 805.2;	DB 22;	Length 917;
Best Local Similarity	91.6%;	Pred. No. 2e-121;		
Matches 907; Conservative	0;	Mismatches 3;	Indels 80;	Gaps 2;

QY	ATATATCAGGGCCCTCCGGCTGCAGCTGGCTGGTTAACTCCGCGGTCTCTC	609
550		
.Db	1 ATGATTCAGGGCCCTCCGGCTGCAGCTGGCTGGTTAACTCCGCGGTCTCTC	60
QY	610 CAGGTACAGTGTCTGGTTGCCGAGAGAACGTGGACTTCCGATCCACGTGGAAACAG	669
.Db	61 CAGGTACAGTGTCTGGTTGCCGAGAGAACGTGGACTTCCGATCCACGTGGAAACAG	120
QY	670 ACGGGGCTCGGAGCATGTGTAGCCGTAAACAGTGGGCTGTACACAGCTCTACACCGG	729
.Db	121 ACGGGGCTCGGAGCATGTGTAGCCGTAAACAGTGGGCTGTACACAGCTCTACACCGG	180

	Key	Location/Qualifiers
QY	730	ACGAGTGGGAAACATCCAGAGCTCTGGCCGACGAGATCAAGTGTGCCCGCGAGAGATGG 789
Db	181	ACCAATGGGAAACATCCAGAGCTCTGGCCGACGAGATCAAGTGTGCCCGCGAGAGATGG 240
QY	790	GACAAGTATGGCCAGCTCTAGTGGACACACACACTTCCTGGTAATCAAGTCCGATCAAG 849
Db	241	GACAAGTATGGCCAGCTCTAGTGGAGACACACACTTCCTGGTAATCAAGTCCGATCAAG 300
QY	850	GGCAAGAGACGGAATTTCTACCTTGGCATGACACCGCAAGGCAAGCTGTGGGAGACCC 909
Db	301	GGCAAGAGAGAGGAATTTCTACCTTGGCATGACACCGCAAGGCAAGCTGTGGGAGACCC 360
QY	910	GATGGCACACCAAGAGATGTGTGTCAATGAGAAGGTTCTGGAGAACACTATACAGGCC 969
Db	361	GATGGCACACCAAGAGATGTGTGTTCATGAGAAAGTTCTGGAGAACACTATACAGGCC 420
QY	970	CTGATGTGGGCTTAAGTACTCCGGCTGTGATCGTGGGCTTCAACCAAGAAAGGGCGCGCG 1029
Db	421	CTGATGTGGGCTTAAGTACTCCGGCTGTGATCGTGGGCTTCAACCAAGAAAGGGCGCGCG 480
QY	1030	AAGGGCCCCAAGACCCCGGAGAACCCAGAGAGACTGATTTCAATGAAGCGCTACCCCAAG 1089
Db	481	AAGGGCCCCAAGACCCCGGAGAACCCAGAGAGACTGATTTCAATGAAGCGCTACCCCAAG 540
QY	1090	GGGCGACCGGAGCTTCAAGAACCCCTTCAAGTACAGACGAGCGTACCAAGAGGTCCTCGG 1149
Db	541	GGGCGACCGGAGCTTCAAGAACCCCTTCAAGTACAGACGAGCGTACCAAGAGGTCCTCGG 600
QY	1150	ATCCGGCCACACACCCCTGCTAGAGCCACCCCGCGCGGCCCTCAAGGTGCGCTTGSCCA 1209
Db	601	ATCCGGCCACACACCCCTGCTAGAGCCACCCCGCGCGGG--CCCTCAGGTGCGCTTGSCCA 659
QY	1210	CACTCACACTCCCAAGAAACTGCAATCAGAGAAATATTTTACATGAAGAAATTAAGAGAA 1269
Db	660	CACTCACACTCCCAAGAAACTGCAATCAGAGAAATATTTTACATGAAGAA-----708
QY	1270	GCTCTATTTTGTACATTTGTTTTAAAGAGACAAAAACTGAACCAAACTTTTGGGGG 1329
Db	709	-----708
QY	1330	GAGGGGTGATTAAGATTTTATTTGACTTAAACCCCCGATGCAAAAGACTACGCCAA 1389
Db	709	-----ATAAGGATTTTATTTGACTTAAACCCCCGATGCAAAAGACTACGCCAA 760
QY	1390	AGGACTGTAGTCAACCCACAGAGTGTCTCTCTAGAGACAGACACTCTAAATC 1449
Db	761	AGGACTGTATCAACCCACAGAGTGTCTCTCTAGAGAACAGACACTCTAAATC 820
QY	1450	GTCCCCAGAGAGACTTGAATGAGAAACCAACACTTTGAAAGCCAAAGTCTTTTTC 1509
Db	821	GTCCCCAGAGAGACTTGAATGAGAAACCAACACTTTGAAAGCCAAAGTCTTTTTC 880
QY	1510	CCAAAGGTTCTGAAAGGAAAAAAAAAAAA 1539
Db	881	CCAAAGGTTCTGAAAGGAAAAAAAAAAAA 910
RESULT 7		
AAS00951		
ID	AAS00951 standard; DNA; 917 BP.	
AC	AAS00951;	
NC	16-JUL-2001 (first entry)	
DT	Human DNA encoding a fibroblast growth factor homologue, zFGF-5.	
DE	Human: fibroblast growth factor homologue; zFGF-5; plasmid construction.	
KW	homologous recombination; ds.	
XX	Homo sapiens.	
OS	Homo sapiens.	
XX	Homo sapiens.	
PH	Key	

Key	Location/Qualifiers
RESULT 7	
AA500951	
ID	AA500951 standard; DNA; 917 BP.
XX	
AC	AA500951;
XX	
DT	16-JUL-2001 (first entry)
XX	
DE	Human DNA encoding a fibroblast growth factor homologue, zFGF-5.
XX	
KW	Human; fibroblast growth factor homologue; zFGF-5; plasmid construction; homologous recombination; ds.
XX	
OS	Homo sapiens.
XX	

FT	CDS	1..624
FT	/tag= a	
FT	/product= "zFGF-5"	
FT	sig_peptide	1..78
FT	/tag= b	
FT	mat_peptide	79..621
FT	/tag= c	
FT	/label= Mature_zFGF-5	
PD	US6207442-BL.	
PD	27-MAR-2001.	
PP	15-OCT-1998;	98US-0173043.
PR	16-OCT-1997;	97US-0062061.
PA	(ZYMO) ZYMOGENETICS INC.	
PI	Raymond CK;	
DR	WPI: 2001-256851/26.	
DR	P-PSDB; AAU01240.	
XX	Preparing a double-stranded, circular DNA molecule, involves homologous recombination of one or more donor DNA fragments encoding the protein of interest, with an acceptor plasmid and DNA linkers in host cell -	
XX	Example 5; Columns 25-28; 23pp; English.	
XX	The sequence encodes a Human fibroblast growth factor homologue, zFGF-5, used to demonstrate the method of the invention. The method of the invention comprises preparing a double-stranded, circular DNA molecule, comprising combining donor DNA fragments encoding the protein of interest with an acceptor plasmid, and two DNA linkers in a Saccharomyces cerevisiae host cell. The encoding DNA is linked to the acceptor plasmid by homologous recombination of with the linkers and acceptor plasmid to form the closed, circular plasmid. The obtained plasmid is useful for transforming host cells and producing proteins of interest. The method allows for production of a standardised plasmid into which a variety of DNA sequences can be readily inserted and subsequently expressed.	
S0	Sequence 917 BP; 244 A; 258 C; 252 G; 163 T; 0 other;	
<hr/>		
QY	Query Match	51.3%; Score 805.2; DB 22; Length 917;
	Best Local Similarity	91.6%; Pred. No. Ze-121;
	Matches 907; Conservative 0; Mismatches 3; Indels 80; Gaps 2	
OY	550 ATGTAATTCAGCGCCCTCCGCCCTGCACACTTGGCTGTACACTTCCTCGCTGCTGCTTC	609
D0	1 ATGTAATTCAGCGCCCTCCGCCCTGCACACTTGGCTGTACACTTCCTCGCTGCTGCTTC	60
OY	610 CAGTACAGAGTGCTGTTGTCGAGAGAAGCACTGACCTCCGATCCAGTGAACAACAG	669
D0	61 CAGTACAGAGTGCTGTTGTCGAGAGAAGCACTGACCTCCGATCCAGTGAACAACAG	120
OY	670 ACGGGGCTCGGGAGCATGTGAGCCGTAAAGCAGCTGGGCTGTACCACTTACACC	729
D0	121 ACGGGGCTCGGGAGCATGTGAGCCGTAAAGCAGCTGGGCTGTACCACTTACACC	180
OY	730 ACCAATGGGAAAACAATCCAGGTCTCTGGGGCCCGCAGGATTAGTGGCCCGCGAGATGGG	789
D0	181 ACCAATGGGAAAACAATCCAGGTCTCTGGGGCCCGCAGGATTAGTGGCCCGCGAGATGGG	240
OY	790 GACAAGTATGGCCACACTCTTAGTGAAGACAGACACTTGGTGAATCAATCCGATCAG	849
D0	241 GACAAGTATGGCCACACTCTTAGTGAAGACAGACACTTGGTGAATCAATCCGATCAG	300
OY	850 GGCAAGGAGAGCGAATCTTACCTGTGCATGAACCGCAAAAGCAGCTGTGGGGAAGCCC	909
D0	301 GGCAAGGAGAGCGAATCTTACCTGTGCATGAACCGCAAAAGCAGCTGTGGGGAAGCCC	360
OY	910 GATGGCACCCAGCAGAGATGTGTTCATCCAGGAAGTTCTGGAGAACACTTACACGGCC	969

	DB	361	GATGGCACACAGCAAGAGTGTGTTTCATCGAAGAAGCTTGAGAAACAACACTACAGGCC	420
	OY	970	CTGATGTGCGCTAAGTACTCCGGCTGGTACGTGGGCTTACCAGAAAGGGGCGGC	1023
	DB	421	CTGATGTGCGCTAAGTACTCCGGCTGGTACGTGGCTTACCAGAAAGGGGCGGC	480
	OY	1030	AAGGGCCCCAAGACCCGGGAGAACACAGCAGAGACGTGCATTTCATGAAGGGCTACCCCAAG	108
	DB	481	AAGGGCCCCAAGACCCGGGAGAACACAGCAGAGAGTGCATTTCATGAAGGGCTACCCCAAG	540
	OY	1090	GGGAGCGCGAGCTTCGAAAGCCCTTCAATACACAGCGSTGACCAAAGAGGTCGCCGTGG	1149
	DB	541	GGGAGCGCGAGGACTTCGAAAGCCCTTCAATACACAGCGSTGACCAAAGAGGTCGCCGTGG	600
	OY	1150	ATCCGGCCACACACACCCTGCTAGAGGCACCCGCGCGGCCCTCAGTGCCTGAGCCA	1209
	DB	601	ATCCGGCCACACACACCCTGCTAGAGGCACCCGCGCGGCCCTCAGTGCCTGAGCCA	659
	OY	1210	CACTCACACCTCCAGAAAACCTGCATCAGAGGAATATTTTAACATAAAAAATTAAGAAAGA	1265
	DB	660	CACTCACACCTCCAGAAAACCTGCATCAGAGGAATATTTTAACATAAAAA-----	708
	OY	1270	GCTCATTTTTGTACATTGTGTATAAAGACCAAAAACCTGACCAAAACCTTGGGGG	1329
	DB	709	-----	708
	OY	1330	GAGGGGTGANTAAGATTTTATTTGTGACTTGAACCCCGATGACAAAAAGACTACGCA	1389
	DB	709	-----ATAAGATTTTATTTGTGTGACTTGAACCCCGATGACAAAAAGACTACGCA	760
	OY	1380	AGGACACTGTACTCAACCCACAGGTGCTGTCTCTCTTAGAAGACAGACACTCTAACTC	1449
	DB	761	AGGACACTGTAGTCAACCCACAGGTGCTGTCTCTCTTAGAAGACAGACACTCTAACTC	820
	OY	1450	GTCCCACAGAGAGACTTGAATGAGAAACCAACACTTGAAGACCAAAAGTCCCTTTTC	1509
	DB	821	GTCCCACAGAGAGACTTGAATGAGAAACCAACACTTGAAGACCAAAAGTCCCTTTTC	880
	OY	1510	CCAAAGGTTCTGAAAAGAAAAAAAAAAAAA	1539
	DB	881	CCAAAGGTTCTGAAAAGAAAAAAAAAAAAA	910
	RESULT	8		
	AAD07796	ID	AAD07796 standard; cDNA; 1023 BP.	
	XX	AC	AAD07796;	
	XX	D7	10-SEP-2001 (first entry)	
	DE	Mouse fibroblast growth factor (zFGF5) cDNA.		
	XX	Mouse; fibroblast growth factor-18; FGF-18; zFGF5; FGF receptor-2; FGF receptor-3; cytochrome; cell proliferation inhibitor; tumour; multiple myeloma; bladder carcinoma; cervix carcinoma; cytostatic; thyroid carcinoma; osteosarcoma; ss.		
	OS	Mus musculus.		
	XX	Key	Location/Qualifiers	
	FT	CDS	1..624	
	FT	/tag=	a	
	XX	Product=	"Mouse fibroblast growth factor (zFGF5)"	
	XX	W0200139788-A2.		
	PD	07-JUN-2001.		
	PF	28-NOV-2000; 2000MO-US32380.		
	R	02-DEC-1999; 99US-0452977.		

XX	(Zymo) ZYMOGENETICS INC.
PA	
XX	
PI	
XX	West JW:
XX	
DR	WPI: 2001-417789/44.
DR	P-PSDB; AAE04537.
XX	
PT	Novel fibroblast growth factor targeting composition useful for inhibiting the proliferation of cells expressing FGF receptor 3 or FGF receptor 2 -
XX	
PS	Disclosure; Page 59-61; 62pp; English.
CC	
CC	The present invention relates to methods for targeting cells that express fibroblast growth receptor-3 or -2. Fibroblast growth factor-18 (FGF-18) binds with FGF receptor-2 and -3. A targeting composition comprising FGF-18 component and cytotoxin, is useful for inhibiting the proliferation of cells that express FGF receptor-3 or -2, in a subject having tumour cells such as multiple myeloma cells, bladder carcinoma cells, cervix carcinoma cells, thyroid carcinoma cells, osteosarcoma cells and intestinal smooth muscle cells. The present sequence is a cDNA encoding mouse zfgf5 protein.
CC	
XX	
SO	Sequence 1023 BP; 321 A; 253 C; 262 G; 187 T; 0 other;
	Query Match 47.0%; Score 737.6; DB 22; Length 1023; Best Local Similarity 86.6%; Pred. No. 1.7e-110; Matches 885; Conservative 0; Mismatches 99; Indels 38; Gaps
QY	550 ATGTAATTAGCGCCCTCCGGCTGCACCTTGCCTTTAACAATTCCTGTGCTGTCTTC
Db	1 ATGTAATTAGCGCCCTCCGGCTGCACCTTGCCTTTAACAATTCCTGTGCTGTCTTC
QY	610 CAGGTACAGGTGCTTGCTTGCAGAGAGAAGCGACTTCCGATCAGCTGGAGAACCAG
Db	61 CAGGTACAGGTGCTTGCAGAGAGAGAGAAATGGCACTTCGATCCAGCTGGAGAACCAG
QY	670 ACCGGGCTCGGGAGCATGTGAACCGGTAAAGCAGTGGCGGCTGTACAGCTTACAGCCGG
Db	121 ACCGGGCTCGAGATGATGTGAATGGAGAACAGTGGCGGCTGTACAGCTTATAGACAG
QY	730 ACCAATGGGAAAACATCTCAGSTCTCTGGGGCCGAGATCAGTCCCCGGCGGAGATGGG
Db	181 ACCAATGGGAAAACATCTCAGSTCTCTGGGGCCGAGATCAGTCCCCGGCGGAGAGCCGG
QY	790 GACAAGTATGCCAGCTCTTAGTGGAGACAGACACTTCGTAAGTCAAGTCCGGATCAAG
Db	241 GACAAGTATGCCAGCTCTTAGTGGAGACAGATACCTTCGGAGTCAAGTCCGGATCAAG
QY	850 GGCAAGGAGAGGAATTTACCTTGATGATGAACCCCAAAGGCAAGCTCGTGGGAAAGCCC
Db	301 GGCAAGGAGAGGAATTTACCTTGATGATGAACCCCAAAGGCAAGCTCGTGGGAAAGCCT
QY	910 GATGGCACACAGCAAGGATGTGTGTTCAATCGAAGAGTTCTGGAGACAATPACACAGGCC
Db	361 GATGGTACTACCAAGGATGTGTGTTCAATCGAAGAGTTCTGGAAACAACATAACAGCGCC
QY	970 CTGATGTGGGTAAAGTACTTCGGGCTGGTACGAGGAGCTTACCAAGAAGGGGGGGCGCGG
Db	421 CTGATGTGGGTAAAGTACTTCGGGCTGGTATGATGGAGGAGCTTACCAAGAAGGGGGGCTCGC
QY	1030 AAGGGCCCCAAGACCCGGGAGNAACCAAGAGACGTGCAATTTCAATGAAAGCGTACCCCAAG
Db	481 AAGGGTCCCAAGAACCCGGGAGAACCAAGAGATGATCACTTATATGAAGCGTTACCCCAAG
QY	1090 GGGCAGCCGAGACTTCAGAAAGCCCTTCAAGTACACGACGGTGAACCAAGAGTCCGTCGG
Db	541 GGACAGGCGCAGAGTGCAGAAAGCCCTTCAAAATACCAACAGTACCAAGAGATCCGGCGGG
QY	1150 ATTCGGGCCACACANCCCTGCGCTTAGGCCAACCCCGCGGCCCTCAAGTGGCCCTGGCCA
Db	601 ATTCGGGCCACTCACCCCGCGCTAGG-----TCGGGCCCA 633

QY	1210	CACACACAC	CCCCAGAAACTGCATCGAGGAAATATTTTACATGAAAAAATTAAGGAAGA	1269					
Db	634	CACACAC	CCCCAGAACTACATCGAGGAATATTTTACATGAAAAAATTAAGGAAGA	693					
QY	1270	GCTTATATTTT	TGTACATTTGTGTTTAAAGACAAACAACTGACCAAACTCTTGGGGG	1329					
Db	694	TCTTATATTTT	TGTACATTTGTGTTTAAAGACAAACAACTGACCAAACTCTTGGGGG	753					
QY	1330	GAGGGGTGAT	TAAGATTTTATTTGTTCACCTTGAACCCCGATGACAAAAGACTCAGCGAA	1389					
Db	754	GAGGGGCGAT	-AGATTTTCACCTGTTCAGCTTGAA---CCCATGACAAAGGACTCAGCACAA	809					
QY	1390	AGGAGCTGTAT	GTCAACCCAGAGTGGCTTGCTCTCTGAGAACACAACTCTCAACTC	1449					
Db	810	GGGAGCGCTGT	CAACCCAGAGTGGCTTGCTCTCTGAGAGGTGACATTCACAAACTC	869					
QY	1450	GTCCCCAGAG	AGGACTTGTGATTAAGGAACAACAACTTGTAGAGAGCCAAAGTCTCTT	1508					
Db	870	ATCCCCAGAG	AGGACTTGTGATTAAGGAGAA-----ACTGGAGAAACCAAGTCTTCTCC	923					
QY	1509	CCCAAGCTTCT	GAAAGGAAAAAACAACAAAAAATTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	1568					
Db	924	CCCAAGGTTCT	GAAAGGAAACAAACAAAAAATTTTTTTTTTTTTTTTTTTTTTTTTTTTTT	983					
QY	1569	AA	1570						
Db	984	AA	985						
RESULT 9									
ABLJ1718									
ID	ABLJ1718	standard;	DNA;	624 BP.					
XX	ABLJ1718;								
XX	28-MAY-2002	(first entry)							
XX	Human polynucleotide	SEQ ID NO 61.							
DE									
XX	Human; HIV; HCV; gene expression; oligoribonucleotide; tumour; pathogen;								
KW	Plasmodium; virus; viroid; cytokine; prion; antisense oligonucleotide;								
KW	cytostatic; virucide; protozoacide; antibacterial; ds.								
XX	Homo sapiens.								
OS	DEJ10100586-C1.								
PN	11-APR-2002.								
PD	09-JAN-2001;	2001DE-1000586.							
XX	09-JAN-2001;	2001DE-1000586.							
XX	(RIBO-) RIBOPHARMA AG.								
XX	Kreutzer R, Lämmer S, Rost S, Hadwiger P;								
PI	WPI: 2002-270454/32.								
DR									
XX	Inhibiting gene expression in cells, useful for e.g. treating tumors,								
PT	by introducing double-stranded complementary oligoRNA having unpaired								
PT	terminal bases								
XX	Claim 13; Page 46; 104pp; German.								
XX									
CC	The invention relates to a method for inhibiting expression of a target								
CC	gene (ABLJ158-ABLJ1797) in a cell by introducing at least one								
CC	oligoribonucleotide that has a double-stranded structure consisting of at								
CC	least 49 sequential nucleotide pairs, with at least part of one strand								
CC	complementary with the target gene and has at least one end a								
CC	single-stranded segment of 1-4 nt. The method provides								
CC	oligoribonucleotides for antisense inhibition of gene expression useful								

KW vascular; gene therapy; ds.

241 TCCCTGGGCCGACGGATCAGTGTCCCGCCGCGGCGAGGATGGGGACCAAGTATGCCACGCTCCTAG 300

Db 301 TGAGACAGACACCTTCGTAGTCAAGTCCGATCAAGGGCAAGAGACGGAATTTACC 360
QY 872 TGTGCATGAACCCGAAAGGCAAGTCTGTGGGAAAGCCCATGGACACGAAAGAGTGTG 931
Db 361 TGTGCATGAACCCGAAAGGCAAGTCTGTGGGAAAGCCCATGGACACGAAAGAGTGTG 420
QY 932 TGTTCATCGAAGAGTCTGTGGAGAACTACAGGGCCGTGATGTGGCTAAGTACTCCG 991
Db 421 TGTTCATCGAAGAGTCTGTGGAGAACTACAGGGCCGTGATGTGGCTAAGTACTCCG 480
QY 992 GCTGTGACGTGGGGCTTACCAGAAAGGGGCGCGGAAAGGGCCCAAGACCCGGGAGA 1051
Db 481 GCTGTGACGTGGGGCTTACCAGAAAGGGGCGCGGAAAGGGCCCAAGACCCGGGAGA 540
QY 1052 ACCAGCAGGACGTGCATTTCA-TGAAGCGCTACCCCAAGGGGC-AGCGGAGCTTCAGAA 1109
Db 541 ACCAGCAGGACGTGCATTTCAATTGTAAGCTACCCCAAGGGGCAACCGGAGCTTTAGAA 600
QY 1110 GCCCTTCAAGTACGACGAGGTGACCAAGAGGTCCCGT-CGGATCGGGCCCAACACCCCTG 1168
Db 601 GCCCTTCAAGTACGACGAGGTGACCAAGAGGTCCCGTCCGATCGGGCCCAACACCCCTG 660
QY 1169 CCT-AGGCCACCCCGCGCGGCCCTC 1194
Db 661 CCTAAGGGCAACCCGCGCGGGGCC 687

RESULT 11
AAZ46767
ID AAZ46767 standard; cDNA; 621 BP.
XX AAZ46767;
AC
XX
DT 31-MAR-2000 (first entry)
DE Human fibroblast growth factor encoding cDNA.
XX
XX Fibroblast growth factor; FGF; tissue formation;
KM Lung tissue interference; human; ss.
OS Homo sapiens.
XX
XX JP11332570-A.
PN
XX
PD 07-DEC-1999.
XX
PF 27-MAY-1998; 98JP-0145478.
XX
PR 27-MAY-1998; 98JP-0145478.
XX
PA (SHIO) SHIONOGI & CO LTD.
XX
DR WPI; 2000-091354/08.
XX
DR P-PSDB; AAY56817.
XX
PT A new fibroblast growth factor and a gene coding it - useful for
PT prevention, treatment and diagnosis of tissue formation interference or
PT treatment of lung tissue interference
XX
XX Claim 1; Page 7-8; 16pp; Japanese.
XX
XX The invention provides fibroblast growth factor (FGF) proteins from
CC human, rat and mouse. FGF is useful for prevention, treatment and
CC diagnosis of tissue formation interference or treatment of lung tissue
CC interference. The present sequence represents a human FGF encoding cDNA.
XX
SQ Sequence 621 BP; 140 A; 180 C; 196 G; 105 T; 0 other;

Query Match 39.5%; Score 619.4; DB 21; Length 621;
Best Local Similarity 99.8%; Pred. No. 2e-91;
Matches 620; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

QY 550 ATGATATTCAGGGCCCTCGGCTGCACCTTGGCTTACACTTCGCTGCTGCTC 609

Db 1 ATGATATTCAGGGCCCTCGGCTGCACCTTGGCTTACACTTCGCTGCTGCTC 60
QY 610 CAGTACAGTGTCTGTTGCCGAGAGAACGTGACTTCGCATTCACAGTGGAGAACCCAG 669
Db 61 CAGTACAGTGTCTGTTGCCGAGAGAACGTGACTTCGCATTCACAGTGGAGAACCCAG 120
QY 670 ACCGGGGCTCGGAGATGTGATGAGCCGTAAAGAGTGGGGCTGTACCGCTTACAGCCG 729
Db 121 ACCGGGGCTCGGAGATGTGATGAGCCGTAAAGAGTGGGGCTGTACCGCTTACAGCCG 180
QY 730 ACCAGTGGGAAACATATCCAGAGTCTGTGGCGCAGAGATCAATGAGCCCGGAGATGG 789
Db 181 ACCAGTGGGAAACATATCCAGAGTCTGTGGCGCAGAGATCAATGAGCCCGGAGATGG 240
QY 790 GACAAATATGCCAGCTCTCTAGTGAAGACAGACACTTGGTACTCAAGTCCGATCAAG 849
Db 241 GACAAATATGCCAGCTCTCTAGTGAAGACAGACACTTGGTACTCAAGTCCGATCAAG 300
QY 850 GGCAAGGAGAGGAATTTCTACGTGATGAACCGCAAGGCAAGCTGTGGGGAAGCC 909
Db 301 GGCAAGGAGAGGAATTTCTACGTGATGAACCGCAAGGCAAGCTGTGGGGAAGCC 360
QY 910 GATGCAACACAGCAAGAGTGTGTTCATCGAAGAGTTCTGAGAACACTACACGCGC 969
Db 361 GATGCAACACAGCAAGAGTGTGTTCATCGAAGAGTTCTGAGAACACTACACGCGC 420
QY 970 CTGATGTGCGCTAAGTACTCCGCTGGTACTGGGCTTACCAAGAGGGCGCGCGG 1029
Db 421 CTGATGTGCGCTAAGTACTCCGCTGGTACTGGGCTTACCAAGAGGGCGCGCGG 480
QY 1030 AAGGGCCCAAGACCCGGGAGAACAGCAGAGGATTCATGAAGCGGTACCCCAAG 1089
Db 481 AAGGGCCCAAGACCCGGGAGAACAGCAGAGGATTCATGAAGCGGTACCCCAAG 540
QY 1090 GGGCAGCGGAGCTTCAAGAACCCCTCAAGTACAGAGCGGTGACCAAGAGGTTCCGTTGG 1149
Db 541 GGGCAGCGGAGCTTCAAGAACCCCTCAAGTACAGAGCGGTGACCAAGAGGTTCCGTTGG 600
QY 1150 ATCCGGCCCAACACACCTGCC 1170
Db 601 ATCCGGCCCAACACACCTGCC 621

RESULT 12
AAZ46769
ID AAZ46769 standard; cDNA; 621 BP.
XX AAZ46769;
AC
XX
DT 31-MAR-2000 (first entry)
DE Mouse fibroblast growth factor encoding cDNA.
XX
XX Fibroblast growth factor; FGF; tissue formation;
KM Lung tissue interference; mouse; ss.
OS Mus sp.
XX
XX JP11332570-A.
PN
XX
PD 07-DEC-1999.
XX
PF 27-MAY-1998; 98JP-0145478.
XX
PR 27-MAY-1998; 98JP-0145478.
XX
PA (SHIO) SHIONOGI & CO LTD.
XX
DR WPI; 2000-091354/08.
XX
DR P-PSDB; AAY56819.
XX
PT A new fibroblast growth factor and a gene coding it - useful for

PT prevention, treatment and diagnosis of tissue formation interference or
PT treatment of lung tissue interference

PS Claim 1: Page 9-10; 16pp; Japanese.

CC The invention provides fibroblast growth factor (FGF) proteins from
CC human, rat and mouse. FGF is useful for prevention, treatment and
CC diagnosis of tissue formation interference or treatment of lung tissue
CC interference. The present sequence represents a mouse FGF encoding cDNA.

XX Sequence 621 BP; 151 A; 168 C; 182 G; 120 T; 0 other;

Query Match 33.3%; Score 523.4; DB 21; Length 621;

Best Local Similarity 90.2%; Pred. No. 6.4e-76;

Matches 560; Conservative 0; Mismatches 61; Indels 0; Gaps 0;

OY 550 ATGTAATTCAGGCGCCCTCCGCTGCACTTGCCTGTTCACCTTCTGCTGCTGCTTC 609
DB 1 ATGTAATTCAGGCGCCCTCCGCTGCACTTGCCTGTTCACCTTCTGCTGCTGCTTC 60

OY 610 CAGGTACAGGTGCTGTTGCGGAGAGAACGTGACCTTCCGATCCAGCTGAGAACAG 669
DB 61 CAGGTACAGGTGTTGGACAGCGAGAGAAATGTGACTTCCGATCCAGCTGAGAACAG 120

OY 670 ACGCGGCTCGGAGAGATGTAGCCGTAAAGACAGCTGCGGCTTACCAAGCTTACAGCCGG 729
DB 121 ACGCGGCTCGAGATGTGTAGTGGAAAGCAGTGCCTTACCAAGCTTATAGCAAG 180

OY 730 ACCAGTGGGAACATCATCCAGTCCGCGGCGGAGATACAGCCGCGGAGAGATGG 789
DB 181 ACCAGTGGGAACATCATTCATCTGGGCGGTAGATAGTCCCGGCGGAGAGAGCGG 240

OY 790 GACAAGTATGCCAGCTCTTACTGTGAGACAGACACCTTGGTACTCAAGTCCGATCAAG 849
DB 241 GACAAGTATGCCAGCTCTTACTGTGAGACAGATACCTTGGGAGTCAATCCGATCAAG 300

OY 850 GGCAAGGAGAGAGATTTACTCTGTGATGAACCCGAAAGCAAGCTGTGGGAAAGCC 909
DB 301 GGCAAGGAGAGAGATTTACTCTGTGTATGAACCCGAAAGCAAGCTGTGGGAAAGCC 360

OY 910 GATGACACAGAGAGAGTGTGTTCATCGAGAGAGTTCGTGAGAACATACAGCGGC 969
DB 361 GATGACACAGAGAGAGTGTGTTCATCGAGAGAGTTCGTGAGAACATACAGCGGC 420

OY 970 CTGATGTGCGCTAAGTACTCGGCTGTGATGAGCTTCCACAGAGAGGCGCGCGG 1029
DB 421 CTGATGTGCGCAAGTACTCTGTGTGTATGTGGCTTCACCAAGAGAGGCGCGCGC 480

OY 1030 AAGGCGCCCAAGAGACCGGAGAGACAGACAGCTGCAATTCATGAAGCGCTACCCCAAG 1089
DB 481 AAGGCGCCCAAGAGACCGGAGAGACAGCAAGATGTATCACTTATGAAGCGTTACCCCAAG 540

OY 1090 GGGCAGCGGAGCTTCAGAAAGCCCTTCAAGTACAGACAGGTGACCAAGAGTCCCGTGG 1149
DB 541 GGGCAGCGGAGCTTCAGAAAGCCCTTCAATATACACACAGTACCAAGAGTCCCGGCGG 600

OY 1150 ATCGGCGCCACACACCTGTGCC 1170
DB 601 ATCGGCGCCACTCACCCCGCC 621

RESULT 13

AAZ46768
ID AAZ46768 standard; cDNA; 621 BP.

AAZ46768;

DT 31-MAR-2000 (first entry)

DE Rat fibroblast growth factor encoding cDNA.

KW Fibroblast growth factor; FGF; tissue formation;
lung tissue interference; rat; ss.

XX Rattus sp.

PN JP11332570-A.

PD 07-DEC-1999.

PF 27-MAY-1998; 98JP-0145478.

PR 27-MAY-1998; 98JP-0145478.

PA (SHIO) SHIONOGI & CO LTD.

DR WPI; 2000-091354/08.

DR P-PSDB; AAY56818.

PT A new fibroblast growth factor and a gene coding it - useful for
PT prevention, treatment and diagnosis of tissue formation interference or
PT treatment of lung tissue interference

PS Claim 1: Page 8-9; 16pp; Japanese.

CC The invention provides fibroblast growth factor (FGF) proteins from
CC human, rat and mouse. FGF is useful for prevention, treatment and
CC diagnosis of tissue formation interference or treatment of lung tissue
CC interference. The present sequence represents a rat FGF encoding cDNA.

XX Sequence 621 BP; 151 A; 169 C; 183 G; 118 T; 0 other;

Query Match 33.2%; Score 521.8; DB 21; Length 621;

Best Local Similarity 90.0%; Pred. No. 1.2e-75;

Matches 559; Conservative 0; Mismatches 62; Indels 0; Gaps 0;

OY 550 ATGTAATTCAGGCGCCCTCCGCTGCACTTGCCTGTTCACCTTCTGCTGCTGCTTC 609
DB 1 ATGTAATTCAGGCGCCCTCCGCTGCACTTGCCTGTTCACCTTCTGCTGCTGCTTC 60

OY 610 CAGGTACAGGTGCTGTTGCGGAGAGAACGTGACCTTCCGATCCAGCTGAGAACAG 669
DB 61 CAGGTACAGGTGTTGGACAGCGAGAGAAAGTGTGACTTCCGATCCAGCTGAGAACAG 120

OY 670 ACGCGGCTCGGAGAGATGTAGCCGTAAAGACAGCTGCGGCTTACCAAGCTTACAGCCGG 729
DB 121 ACGCGGCTCGGAGATGTGTAGTGGAAAGCAGTGCCTTACCAAGCTTACAGCAGG 180

OY 730 ACCAGTGGGAACATCATCCAGTCCGCGGCGGAGATACAGCCGCGGAGAGATGG 789
DB 181 ACCAGTGGGAACATCATTCATCTGGGCGGTAGATAGTCCCGGCGGAGAGAGCGG 240

OY 790 GACAAGTATGCCAGCTCTTACTGTGAGACAGACACCTTGGTATGCAAGTCCGATCAAG 849
DB 241 GACAAGTATGCCAGCTCTTACTGTGAGACAGATACCTTGGGAGTCAAGTCCGATCAAG 300

OY 850 GGCAAGGAGAGAGATTTACTCTGTGATGAACCCGAAAGCAAGCTGTGGGAAAGCC 909
DB 301 GGCAAGGAGAGAGATTTACTCTGTGTATGAACCCGAAAGCAAGCTGTGGGAAAGCT 360

OY 910 GATGACACAGAGAGAGTGTGTTCATCGAGAGAGTTCGTGAGAACATACAGCGGC 969
DB 361 GATGACACAGAGAGATGTGTTCATCGAGAGAGTTCGTGAGAACATACAGCGGC 420

OY 970 CTGATGTGCGCTAAGTACTCGGCTGTGATGAGCTTCCACAGAGAGGCGCGCGG 1029
DB 421 CTGATGTGCGCAAGTACTCTGTGTGTATGTGGCTTCACCAAGAGAGGCGCGCTGC 480

OY 1030 AAGGCGCCCAAGAGACCGGAGAGACAGACAGCTGCAATTCATGAAGCGCTACCCCAAG 1089
DB 481 AAGGCGCCCAAGAGACCGGAGAGACAGCAAGATGTATCACTTATGAAGCGTTACCCCAAG 540

OY 1090 GGGCAGCGGAGCTTCAGAAAGCCCTTCAAGTACAGACAGGTGACCAAGAGTCCCGTGG 1149
DB 541 GGGCAGCGGAGCTTCAGAAAGCCCTTCAATATACACACAGTACCAAGAGTCCCGGCGG 600

xx This is the degenerate nucleotide sequence of the novel fibroblast
cc growth factor homologue zfgf-5, used in the method of the invention.
cc The zfgf-5 polypeptides can be used (optionally ex vivo) for enhancing
cc the proliferation of cardiac tissue cells. The polypeptides, nucleic
cc acids, antagonists, and antibodies can also be used in the treatment
cc of disorders such as heart failure, stroke, hypertension, bone defects,
cc cancer, arthritis, or wounds. The products can also be used in the
cc study of cardiac myocyte hyperplasia and regeneration, to target
cc delivery of agents to the heart and for detection and diagnosis. The
cc recombinant cells can be used to produce the protein.

xx
SQ Sequence 620 BP; 121 A; 57 C; 104 G; 76 T; 262 other;

Query Match 27.4%; Score 429.8; DB 19; Length 620;

Best Local Similarity 57.3%; Pred. No. 8.3e-61;

Matches 355; Conservative 152; Mismatches 112; Indels 1; Gaps 1;

OY 550 ATGTATTCAGCGCCTCCCGCTGCACTGCTGTGTTAACTTCCTGCTGTGCTTC 609
DB 1 ATGTAWSNCGNCNMNCGNCTGACNTGYTNTGYTNCAYTYYTNTYNTNTGTYT 60
OY 610 CAGGTACAGTGTGCTGCGGAGAGCGACTCCGCATCCACGTCCGAGAACCCAG 669
DB 61 CARGTNCARGTNTTNGTNGCNGRARAAYGTNGA-YTGNNTGAYGTNGARARCAR 119
OY 670 ACGCGGCTCGGGAGAGTGTAGCCGTAGCAGCTGCGCTTACACGCTTACAGCCG 729
DB 120 ACNMGNGCMNGAYGAYTWNMNGMARCARYTMTGMYTNTAYCARTNTAYWSMGN 179
OY 730 ACCAGTGGAAACACATCAGTCTGCGCCGAGATCATGCCCGCGGAGATGGG 789
DB 180 ACNWSNGNAARCAVATHCARGTNTGCMNGMGNATHMSNCGMNGNGARGAYG 239
OY 790 GACAAGTATGCCGCTGAGTGTAGAGACAGACACTTGGTAGTCACTCCGATCAG 849
DB 240 GATTAATATGCMCARTTNTGTNGARACNGAYACNTTYGWNMNCARTNMGNATHAR 299
OY 850 GSCAAGAGACGGAATTCTACTGTGCATGAACCCGAAGCAAGCTCTGGGAGACC 909
DB 300 GGNARAGARACGARTTYATYTTNGYATGMNGNAAAGNARTTNGTNGNAAACN 359
OY 910 GATGCACACGACAGAGTGTGTTCATGAGAAAGTTCTGGAGAACACTACAGGCC 969
DB 360 GAYGNGACMWSNARAGARTGYGNTTYATHGARAAAGTNTGARAAAYATAACNGN 419
OY 970 CTGATGTGGCTAAGTACGCGGCTGAGTGGGCTTACCAAGAAGGGGGCGCGCG 1029
DB 420 YTNATGWSNCGNAARTATWSNAGNTGTAYGTNGTTCNAPARARAGNCGNCGN 479
OY 1030 AAGGCCCCAAGACCCGGAGAACACGAGACGTGATTCATGAGAGCGCTACCCCAAG 1089
DB 480 AARGNCCNARACNMGNGARARAYCARCARGAYGTNCATTTATGARAGNTAYCCNAR 539
OY 1090 GGGCAGCCGGAGCTTACAGACCTTCAAGTACAGAGCGGTACCAAGAGTCCGCTGG 1149
DB 540 GGNCAACCNGARTTCARARCCNTTYARTAYACNACNGTACNARAGNWSNMGNGN 599
OY 1150 ATCCGCGCACACACCTGC 1169
DB 600 ATHMGNCNACNCAATCCNCG 619

Search completed: April 26, 2003, 16:27:16
Job time : 276 secs